Revista argentina de cardiología
ISSN: 1850-3748
Sociedad Argentina de Cardiología

MORELL, VÍCTOR O; WEINER, EUGENE S
Valvuloplastía, valvuloplastía y luego reemplazo
Revista argentina de cardiología, vol. 87, núm. 5, 2019, Septiembre-Octubre, p. 345
Sociedad Argentina de Cardiología

DOI: https://doi.org/10.7775/rac.es.v87.i5.16433

Disponible en: https://www.redalyc.org/articulo.oa?id=305363080002

EDITORIAL

Repair, Repair then Replace

Valvuloplastía, valvuloplastía y luego reemplazo

VÍCTOR O. MORELL, EUGENE S. WEINER

Diseases of the mitral valve that lead to significant valve insufficiency in the pediatric population are quite variable, including: congenital anomalies of the valvular or subvalvular apparatus, acquired systemic illnesses, connective tissue disorders, and anomalies of the coronary arteries. We can all agree that the ideal surgical management of children with mitral valve regurgitation is valve repair. Better short and long-term survival has been reported in children undergoing mitral repair when compared to valve replacement. (1)

In this issue of this Journal, Sepulveda and associates (2) report their experience with mitral valve repair in 65 pediatric patients with moderate to severe valve insufficiency (MR≥2+). The main purpose of this study was to elucidate risk factors leading to a mitral valve reoperation and/or recurrence of significant valve regurgitation. There was no operative mortality in this series, and with a mean follow-up of just over 2 years in 52 patients, there were 9 reoperations. On multivariate analysis they identified the following risk factors for poor outcome after mitral valve repair: rheumatic fever, mitral annulus diameter ≥+5SD and immediate postoperative residual MR≥ 2+. Interestingly, neither patient weight or age proved to be important.

The findings in this publication are consistent with previous studies that have identified hemodynamically significant residual mitral valve regurgitation and rheumatic fever as risk factors for reoperation after mitral valvuloplasty. (3-5) Also, a severely dilated mitral annulus has been associated with the presence of significant mitral valve regurgitation (6), which likely reflects the severity of the underlying valve pathology. One of the characteristic changes observed with rheumatic heart disease is the development of mitral annular dilatation; therefore is not surprising that these two "risk factors" where noted in this study. The fact that neither patient weight or age proved to be important factors for a poor outcome might just suggest that the underlying valve disease is what really determines the end result of a mitral valuloplasty and not the size of the patient.

Sepulveda and associates correctly conclude that mitral valvuloplasty is a safe and effective surgical technique for the management of mitral regurgitation in children. Not all diseased mitral valves can be repaired, but we should not shy away from trying.

Conflicts of interest

None declared.

(See authors' conflicts of interest forms on the website/ Supplementary material).

REFERENCES

1. Baird CW, Myers PO, Marx G, del Nido PJ. Mitral valve operations at a high-volume pediatric heart center: Evolving techniques and improved survival with mitral valve repair versus replacement. Ann Pediatric Card 2012;5:13-20. http://doi.org/gcb5vz

2. Sepúlveda SE, Medina MJ, Martin A, Salgado G, Moreno G, Cornelis J, et al. Risk Factors of Unfavorable Outcome in Children with Mitral Valve Repair. Rev Argent Cardiol 2019:87;334-8.

3. Wood AE, Healy DG, Nolke L, Duff D, Oslizlok P, Walsh K. Mitral valve reconstruction in a pediatric population: Late clinical results and predictors of long-term outcomes. J Thorac Cardiovascular Surg 2005;130:66-73. http://doi.org/bs45q2

4. Hillman ND, Tani LY, Veasy LG, Lambert LL, Di Russo GB, Doty DB, et al. Current Status of Surgery for Rheumatic Carditis in Children. Ann Thorac Surg 2004;78:1403-8. http://doi.org/db75

5. Cruz RCC, Cordeiro BS, Santos FS, Fernandes CR, Gama JMA, Ladeia AMT. Predictors of Unfavourable Outcomes in Children and Adolescents Submitted to Surgical Mitral Valvuloplasty Secondary to Chronic Rheumatic Heart Disease. Arq Bras Cardiol. 2019. pii: S0066-782X2019005017102. http://doi.org/db75

6. Hayashi T, Inuzaka R, Shinzo T, Ono H, Kaneko Y, Kato H, et al. Clinical implications of mitral valve geometric alterations in children with dilated cardiomyopathy. Cardiol Young 2016;26:1365-72. http://doi.org/f86mv4

SEE RELATED ARTICLE: Rev Argent Cardiol 2019;87:334-338. http://dx.doi.org/10.7775/rac.v87.i5.11374

Endowed Professor and Chair. Pediatric Cardiothoracic Surgery. University of Pittsburgh Medical Center. Surgeon-in-Chief, CHP.
morellvo@upmc.edu